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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 04282004

Application Number: 09/888,246

Filing Date: June 22, 2001

Appellant(s): PARKS ET AL.

MAILED

APR 30 2004

GROUP

R. Andrew Patty II
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 03, 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1, 2 and 4 are grouped together.

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

5,457,248 MACK et al. 10-1995

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mack et al. ('248).

Mack et al. teach preparation of brominated diphenylalkane products having a high levels of decabromodiphenylalkane which are far whiter than prior known brominated diphenylalkane products (see the entire article, especially Abstract; col. 4, lines 64-67; col. 8, lines 53-59 and examples). The reference teaches (a) brominated diphenylalkane products which are essentially free from bromines on the alkylene bridge and are highly thermally stable (see col. 2, lines 51-61); (b) the use of chelating or complexing agents or high temperature aromatic solvent treatment to improve the color characteristics of the brominated diphenylalkane products (see col. 5, line 9 – col.

6, line6; examples 2-4) and (c) the use of the brominated diphenylalkane products as flame retardants (see col. 1, lines 11-15).

The instant claims differ from the reference by reciting a wet cake having occluded free bromine content of from about 500 ppm to about 2000 ppm. However, the reference teaches several means useful for improvement in the color characteristics of the brominated diphenylalkane products (see especially examples 2-4). Based on the teaching of the prior art of the use of chelating, complexing agent etc. and examples 2-4, the skilled artisan would have the reasonable expectation that the wet cake of the prior art would have similar occluded bromine content as those recited by the instant claims. The motivation to obtain a wet cake having low bromine content is based on the teachings of the prior art of an improvement in the color characteristics of the product and the production of highly thermally stable products.

(11) Response to Argument

Applicant's argument centers on the fact that the reference is silent as to the amount of occluded bromine in the product before roasting. Applicant also argues the occluded bromine content of Mack is higher than that of the instant claims because the yellowness index of the oven-aged products of Mack is higher and there is no reasonable expectation that treatment in Mack would give wet cakes having low occluded free bromine content. Applicant's argument was not persuasive for the following reasons.

According to the present specification, a wet cake refers to the undried solids recovered from the slurry. In other words, the product obtained before drying of any kind. However, applicant has not provided any comparison of the prior art wet cake provided after treatment as taught by Mack and those of the claimed wet cake.

In response to applicant's argument that the YI of the dried solids of the instant claims is in the same range as the oven roasted products of Mack. The examiner notes that the temperature at which the claimed product is dried is similar to the temperature at which the prior art product is oven-roasted, 205°C versus 200°C respectively. Based on the teachings of the prior art and the present disclosure, it is obvious that high temperatures, for example, roasting, are utilized in the removal of excess bromine and, thus, improvement in color characteristics of the brominated product. Therefore, the skilled artisan would have the reasonable expectation that applicant's dried product would have a lower bromine content and, thus, a lower YI value than the prior art product dried at 120°C. In order to make a comparison between the two dried products, the drying temperatures should be similar and, thus, a better comparison would be between the claimed dried product having a YI of about 12.5 to about 17.5 and the oven-roasted prior art product with a YI of 14.8 to 16.1 since the temperature utilized for roasting of the prior art product is similar to that utilized for drying by the present invention.

In summary, if the color of the wet cake evidences its occluded free bromine content as disclosed by the present specification (see page 14, section 0048) and Mack teaches several treatment methods for improvement in the color of the brominated

product, the skilled artisan would have the reasonable expectation that the prior art wet cake treated as taught by Mack would have low amounts of occluded free bromine content even though the amount is not disclosed by the reference. There is no evidence of record showing the prior art product differs from the instantly claimed product. In the absence of said evidence of record, the claimed wet cake is prior facie obvious in view of the teachings of the cited prior art even though the prior art is silent as to the amount of occluded bromine in its product.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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BB
April 28, 2004

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